

REMARKS

This Request for Reconsideration is filed in response to the non-final Office Action of March 29, 2011 in which claims 1-13 and 15-36 were rejected.

Regarding the obviousness rejection of claims 1, 4-6, and 9-18, the Examiner alleges that *Yasuda* teaches *wherein a parameter is defined indicative of the maximum number of data transmission units that have an earlier transmission order and a later decoding order than another data transmission unit in a packet stream; and providing said parameter to a decoder to determine buffering requirements*. The applicant respectfully disagrees.

In *Yasuda* (US-6,754,275) a smooth reproduced picture is produced at inverse playback, without losing of naturality (sic) of display. Picture output candidate frames are decided such that intervals between frames are uniform on a time axis at a normal playback. When the candidate frame exists in a group of pictures (GOP) preceding a GOP which is presently displayed and a number of frames in the GOP is unknown, a frame among one of a last or a second to last I or P coded frame in the GOP, which is nearer to a true picture output frame is decided as a picture output candidate frame.

(Abstract)

*Yasuda* discloses a system in which inverse playback of a moving picture is provided. The inverse playback may have an increased playback rate compared to the original playback rate. For example, the inverse playback rate may be three wherein only every third picture shall be displayed in reversed order. See col. 6, lines 14-18 of *Yasuda*. The passage from col. 6, line 19 to col. 7, line 17 discloses an example in which the inverse playback rate is 3 and the decoding device is playing back the frame B7 in GOP(n) of Fig. 1(a). The next frame to be displayed is B4 in the same GOP. In some situations the next frame to be displayed is in the previous GOP. Hence, the decoder needs to receive the previous GOP to be able to determine which frame should be output. For example, in Fig. 1(a), when a picture of the B1 coded frame in GOP(n) is to be output, streams of GOP(n-1) and GOP(n) are requested. Therefore, when GOP(n-1) is decoded, the number of frames in GOP(n-1) can be known at the same time as a P11 coded frame in GOP(n-1) which is a forward reference frame is decoded. Accordingly, the number of frames in GOP(n-1) becomes known at that time and then, a B10 coded

frame in GOP(n-1) as a picture output candidate frame is identified immediately. In other words, when a previous GOP is required for decoding and displaying the current frame, the decoder receives the previous GOP and determines how many frames are included in that GOP. When it has found out the number of frames in that GOP, the decoder is able to determine which frame in the previous GOP is the next frame to be displayed.

The procedure is depicted in the flow diagram of Fig. 4 and explained in col. 8, line 51 - col. 10, line 10. Initially, a picture output candidate frame number FC which is a frame number of a picture output candidate frame is obtained by subtracting a frame interval setting signal Nint from a frame number of a presently displayed frame (processing S110). Here, the frame interval setting signal Nint is set by the frame interval setting means 60. Next, this FC is compared with 0 (processing S120), and when FC is 0 or greater (NO), it is judged that a frame to be displayed next exists in this GOP. Then, processing of requesting transfer of a GOP that is required to picture output of the picture output candidate frame of FC is performed (processing S180).

When it is judged from the result of the processing S120 that FC is below 0 (YES), it is judged that the frame to be displayed next does not exist in this GOP. Then, it is judged whether the number of frames in a GOP (hereinafter, referred to as GOP (p-1)) which is one GOP before a GOP (hereinafter, referred to as GOP(p)) which includes the presently displayed frame is known (processing S130). When it is known (YES), FC is compared with -1 (processing S140) and when it does not coincide with -1 (NO), the frame is not the last frame in GOP (p-1). Therefore, a value obtained by adding the number of frames in GOP(p-1) to FC is newly set as FC (processing S150). Further, when it is judged from the result of the processing S140 that FC coincides with -1 (YES), it is judged that this frame is the last frame in GOP(p-1) and then it proceeds to processing S180.

On the other hand, when it is judged from the result of the processing S130 that the number of frames in GOP(p-1) is unknown (NO), the transfer request for a stream of GOP(p-1) is issued (processing S145), and the stream of GOP(p-1) which is input from the outside as the result of the request is analyzed to determine the number of frames

included therein (processing S155). By this processing, the number of frames in GOP(p1) is decided.

Thus, the parameter FC indicates whether the frame to be displayed next exist in this GOP or not. The value of FC can be greater than or equal to 0 (the frame to be displayed next exists in this GOP), -1 (the frame to be displayed next exist is the last frame in the previous GOP), or less than -1 (the frame to be displayed next exist in the previous GOP and is not the last frame in the previous GOP). The parameter FC is not indicative of the maximum number of data transmission units which have an earlier transmission order and a later decoding order than another data transmission unit in a packet stream. Therefore, the combination of *Hannuksela* and *Yasuda* does not teach each and every feature of the independent claims 1, 4-5, 9-10, 13, 15-18 rejected on this combination of the prior art is inapplicable. The dependent claims 6 and 11-12, 19-21, 24-25, 31, and 34-36 rejected on the same ground are nonobvious for at least the same reasons. The applicant respectfully requests the Examiner to withdraw the rejections.

Regarding the separate rejection in section 6 beginning on page 7 of the detailed action, independent claim 28 is nonobvious for the same reasons advanced above in Applicant overcoming the rejection of the other independent claims. The dependent claims 2-3, 7-8, 22-23, 26-27, 29-30, and 32-33 rejected based also on *Viscito et al* (US 2004/0005007) are also believed to be patentable at least due to their dependencies.

The objections and rejections of the Office Action of March 29, 2011, having been obviated by amendment or shown to be inapplicable withdrawal thereof is requested and passage of pending claims 1-13 and 15-37 to issue is earnestly solicited.

Respectfully submitted,

/Francis J. Maguire/

Francis J. Maguire  
Attorney for the Applicant  
Registration No. 31,391

FJM/mo  
Ware, Fressola, Van Der Sluys & Adolphson LLP  
Customer No. 10945